

**POST ETCH CLEANING COMPOSITION AND  
PROCESS FOR DUAL DAMASCENE SYSTEM**

**ABSTRACT OF THE DISCLOSURE**

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A new cleaning chemistry based on a choline compound, such as choline hydroxide, is provided in order to address the problem of dual damascene fabrication. An etch stop inorganic layer at the bottom of a dual damascene structure protects the underlying interconnect of copper and allows a better cleaning. A two step etch process utilizing the etch 10 stop layer is used to achieve the requirements of ULSI manufacturing in a dual damascene structure.

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